BD2Decide
Project ID: 689715
Funded under: H2020-EU.3.1.5. - Methods and data

Big Data and models for personalized Head and Neck Cancer Decision support

From 2016-01-01 to 2019-09-30, ongoing project | BD2Decide Website

Project details

| Total cost: | EU 4 845 000 |
| Topic(s): | PHC-30-2015 - Digital representation of health data to improve disease diagnosis and treatment |
| EU contribution: | EU 4 845 000 |
| Call for proposal: | H2020-PHC-2015-single-stage |
| Coordinated in: | Italy |
| Funding scheme: | RIA - Research and Innovation action |

Objective

"Cancers of the Head and Neck Region (HNC) are the 6th more deadly cancers worldwide: in Europe ~150,000 new cases are detected and ~70,000 patients die every year. The main reasons for high mortality are the fact that the majority of cases are diagnosed in advanced Stage and the intrinsic heterogeneity of such tumors. At present the only adopted treatment decision method is based on TNM (Tumor-lymph-Nodes-Metastasis) prognostic system, that considers only a few risk factors such as smoking, alcohol abuse and more recently HPV. The TNM system is therefore inadequate to capture the patient-specific biomolecular characteristics of the tumor. HNC treatments can have hard impact on patient’s aesthetics and functionalities and, due to their toxicity, can cause severe morbidity and greatly deteriorate patient’s quality of life. A more precise prognostic prediction than the current TNM system is needed that allows implementing the first-line treatment that maximizes the therapeutic result and minimizes the impacts of therapy. BD2Decide DSS provides clinicians with the "means" and all the necessary information to tailor treatment and care delivery pathway to each and any HNC patient during their usual practice, in contrast to current “one-size-fits-all approach”. BD2Decide realizes and validates an Integrated Decision Support System that links population-specific epidemiology and behavioral data, patient-specific genomic, pathology, clinical and imaging data with big data techniques, multiscale prognostic models. Advanced graphical visualization tools are developed for prognostic data disclosure and patient co-participation to the selected treatment. BD2Decide will improve the clinical decision process, uncover new patient-specific patterns that can improve care, and create a virtuous circle of learning. A multicentric clinical study with more than 1,000 patients will be used to validate the system.

Related information

Report Summaries

Periodic Reporting for period 1 - BD2Decide (Big Data and models for personalized Head and Neck Cancer Decision support)
Coordinator
AZIENDA OSPEDALIERO-UNIVERSITARIA DI PARMA
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EU contribution: EUR 464,375
See on map

Activity type: Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)
Contact the organisation

Participants
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Netherlands
EU contribution: EUR 0
See on map

Activity type: Higher or Secondary Education Establishments
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HEINRICH-HEINE-UNIVERSITAET DUESSELDORF
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EU contribution: EUR 338,750
See on map

Activity type: Higher or Secondary Education Establishments
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FONDAZIONE IRCCS ISTITUTO NAZIONALE DEI TUMORI
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EU contribution: EUR 815,000
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Activity type: Research Organisations
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EU contribution: EUR 415,000
See on map

Activity type: Higher or Secondary Education Establishments
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EU contribution: EUR 321 375

ATHENS TECHNOLOGY CENTER ANONYMI BIOMICCHANIKI EMPORIKI KAI TECHNIKI ETAIREIA  
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152 33 ATHINA  
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EU contribution: EUR 342 000

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Israel  
EU contribution: EUR 495 750

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EU contribution: EUR 373 062,50

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EU contribution: EUR 308 750

Activity type: Research Organisations
Contact the organisation

Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)
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Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)
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Activity type: Research Organisations
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Activity type: Higher or Secondary Education Establishments
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